

## WHAT IS CLAIMED IS:

1. A photoelectric switch device for detecting a presence or an absence of an object in a specified field of detection which has at least photoelectric means for receiving light from the field of detection and generating an electric signal of a level representing an amount of light incident thereupon and processing means for processing the electric signal from said photoelectric means, for making a determination of the presence or the absence of the object in the field of detection on the basis of a comparison of the level of the electric signal from said photoelectric means with a specified threshold and for providing an electric signal representing a result of the determination, all of said means being installed in a generally rectangular-parallelepiped box casing defined by a plurality of walls, said photoelectric switch device comprising:

optical means disposed on a front wall of said generally rectangular-parallelepiped box casing for directing light from the field of detection to said photoelectric means;

display means disposed on a rear wall of said generally rectangular-parallelepiped box casing opposite to said front wall and operatively connected to said processing means for providing a display of at least one of the specified threshold and the level of the electric signal from said photoelectric means;

display selection means disposed on said generally rectangular-parallelepiped box casing and operationally connected to said processing means for selecting one of the specified threshold and the level of the electric signal from said photoelectric means for said display means;

adjusting means disposed on said rear wall and operatively connected to said

processing means for adjusting the specified threshold while the specified threshold is displayed on said display means; and

detection result indicator means disposed on said generally rectangular-parallelepiped box casing in an area confined by said rear wall and a top wall of said generally rectangular-parallelepiped box casing connecting said front wall and said rear wall to each other and operatively connected to said processing means for indicating the result of the determination.

2. A photoelectric switch device as defined in claim 1, wherein said detection result indicator means is disposed on and projects from said rear wall of said generally rectangular-parallelepiped box casing.

3. A photoelectric switch device as defined in claim 1, wherein said display selection means is disposed on said rear wall of said generally rectangular-parallelepiped box casing.

4. A photoelectric switch device as defined in claim 3, further comprising a fixing means disposed on said rear wall and operationally connected to said processing means for fixing the specified threshold adjusted by said adjusting means.

5. A photoelectric switch device as defined in claim 4, wherein said display selection means and said fixing means are integrated as one double-functional switch.

6. A photoelectric switch device as defined in claim 1, further comprising a cable connected to said processing means and extending out from said generally rectangular-parallelepiped box casing between said rear wall and a bottom wall of said generally rectangular-parallelepiped box casing connecting said front and rear walls to each other for providing power to said power supply circuit and signals including the electric signal representing the result of the determination.

7. A photoelectric switch device as defined in claim 6, wherein said generally rectangular-parallelepiped box casing has a tapered rear top corner wall between said rear wall and said bottom wall through which said cable extends out from said generally rectangular-parallelepiped box casing.